

In the Claims

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (Original) A bone cement composition comprising a calcium component and a liquid component in which the liquid component comprises a mixture of pyrophosphate ions and at least one of the following: orthophosphate ions and/or water.
2. (Original) A bone cement composition according to claim 1 comprising between 0.8g to 3.0g calcium component to 1ml liquid component.
3. (Original) A bone cement composition according to claim 1 comprising between 1.5g to 2.5g calcium component to 1ml liquid component.
4. (Currently Amended) A bone cement composition according to ~~claims~~claim 1 to 3 where the calcium component is a solid in the 10nm to 100µm primary particle size range.
5. (Currently Amended) A bone cement composition according to ~~claims~~claim 1 to 4 where calcium component is a calcium phosphate.
6. (Currently Amended) A bone cement composition according to ~~claims~~claim 1 to 4 where the calcium component comprises at least one of the following: β -tricalcium phosphate (β -TCP), α -tricalcium phosphate (α -TCP), tetracalcium phosphate (TTCP), dicalcium phosphate anhydrous (DCPA), dicalcium phosphate dihydrate (DCPD), hydroxyapatite (HA) or calcium oxide (CaO).

7. (Currently Amended) A bone cement composition according to ~~claim 1 to 6~~ claim 1 to 6 where the source of pyrophosphate ions is pyrophosphoric acid or a sodium pyrophosphate.

8. (Currently Amended) A bone cement composition according to ~~claim 1 to 7~~ claim 1 to 7 where the source of orthophosphate ions is orthophosphoric acid.

9. (Currently Amended) A bone cement composition according to ~~claim 7 to 8~~ claim 7 to 8 where the liquid component comprises between 0 and 90% water by weight.

10. (Currently Amended) A bone cement composition according to ~~claim 7 or 8~~ claim 7 or 8 where the liquid component comprises at least 10% pyrophosphoric acid or source of pyrophosphate ions by weight.

11. (Currently Amended) A bone cement composition according to ~~claim 7 or 8~~ claim 7 or 8 where the liquid component comprises no more than 85% pyrophosphoric acid or source of pyrophosphate ions by weight.

12. (Currently Amended) A bone cement composition according to ~~claim 7 or 8~~ claim 7 or 8 where the liquid component comprises at least 5% orthophosphoric acid or source of orthophosphate ions by weight.

13. (Currently Amended) A bone cement composition according to ~~claim 7 or 8~~ claim 7 or 8 where the liquid component comprises no more than 85% orthophosphoric acid or source of orthophosphate ions by weight.

14. (Currently Amended) A bone cement composition according to ~~claim 7 or 8~~ claim 7 or 8 comprising water within the range 0 to 90% by weight,

pyrophosphoric acid 10 to 80% by weight and orthophosphoric acid 5 to 80% by weight.

15. (Currently Amended) A bone cement composition according to ~~claims~~claim 7 or 8 comprising water within the range 30 to 80% by weight, pyrophosphoric acid 10 to 80% by weight and orthophosphoric acid 5 to 40% by weight.

16. (Currently Amended) A bone cement composition according to ~~claims~~claim 7 or 8 comprising water within the range 0 to 90% by weight, pyrophosphoric acid 10 to 80% by weight and orthophosphoric acid 5 to 40% by weight.

17. (Currently Amended) A bone cement composition according to ~~claims~~claim 7 or 8 comprising water within the range 45 to 80% by weight, pyrophosphoric acid 10 to 50% by weight and orthophosphoric acid 5 to 40% by weight.

18. (Currently Amended) A bone cement composition according to ~~any of the preceding claims~~claim 1 comprising a retardant.

19. (Original) A bone cement composition according to claim 18 where the retardant comprises at least one of the following: Chitosan, calcium sulphate hemihydrate, trisodium citrate, sodium acetate, sodium glycolate, sodium lactate, non-toxic orthophosphate salts, phosphate buffered saline.

20. (Currently Amended) A process for manufacturing a bone cement of a composition according to ~~any of the preceding claims~~claim 1 where the components are compacted to a pressure between 0MPa and 100MPa prior to setting.

21. (Original) A bone cement composition comprising a calcium component and a liquid component comprising a solution of polyphosphate salt.

22. (Original) A bone cement composition according to claim 21 where the calcium component is calcium hydroxide.

23. (Currently Amended) A bone cement composition according to ~~claims~~claim 21 ~~or 22~~ where the polyphosphate salt is sodium tripolyphosphate. |